



State of New Hampshire
Department of Health and Human Services
Division of Public Health Services



Outdoor Activities and West Nile Virus

Do I need to change my safety practices when outdoors?

It is not necessary to limit your usual outdoor work or activities, **unless there is confirmed evidence of mosquito-borne disease in the area where you are working.**

What if West Nile virus is identified in the area where I am outdoors?

West Nile virus is spread to humans by the bite of an infected mosquito. When a mosquito bites an infected bird, the mosquito becomes infected. The infected mosquito could then bite a human and transmit the infection. You can reduce your risk of disease by reducing the chance that mosquitoes will bite you. Mosquitoes are most active during evening, nighttime, and dawn hours, but they may be present at any time of day. When mosquitoes are actively biting, take the following precautions:

- Protective clothing such as long pants, long-sleeved shirts, and socks should be worn if outside during evening, nighttime, and dawn hours, the time when mosquitoes are most active, and at other times when mosquitoes are biting.
- If outside during evening, nighttime, and dawn hours, or whenever mosquitoes are biting, consider the use of an effective insect repellent such as a 10% or less concentration of DEET (N, N-diethyl-meta-toluamide) for children and no more than 30% DEET for adults.
- **USE DEET ACCORDING TO MANUFACTURER'S DIRECTIONS:**
 - Do not use DEET on infants or pregnant women. Instead, avoid outdoor activities during peak biting times, wear clothing that protects the skin, and use netting/screens to preclude mosquito bites.
 - Do not allow young children to apply DEET themselves.
 - Do not apply DEET directly to children. Apply DEET to your own hands and then put it on the child's exposed skin.
 - Avoid putting DEET on the hands of children or near their eyes and mouth.
 - Do not spray directly on the face, spray into the hands first and then apply to the face.
 - Do not apply to cuts, wounds, or irritated skin.
 - Do not use under clothing.
 - Do not spray DEET containing products in enclosed areas.

- DEET is effective for approximately four hours. Avoid prolonged or excessive use of DEET. Use sparingly to cover exposed skin and clothing.
- Wash all treated skin and clothing after returning indoors.
- Store DEET out of reach of children.
- Vitamin B, ultrasonic devices, incense, and bug zappers have not been shown to be effective in preventing mosquito bites.

More information on mosquito repellents is available in a technical article for physicians at <http://content.nejm.org/cgi/content/full/347/1/13>. Mark S. Fradin, MD. Mosquitoes and Mosquito Repellents: A Clinician's Guide. New England Journal of Medicine, Volume 347:13-18, July 4, 2002 Number 1.

What can I do around my home to help reduce exposure to mosquitoes?

Mosquitoes lay their eggs in standing water. Weeds, tall grass, and bushes provide an outdoor home for the adult mosquito commonly associated with West Nile virus. Mosquitoes can enter homes through unscreened windows or doors, or broken screens. Here are some steps that you can take:

- Make sure that doors and windows have tight-fitting screens. Repair or replace all screens in your home that have tears or holes.
- Remove all discarded tires from your property. The used tire has become the most prominent domestic mosquito-breeding habitat in this country.
- Dispose of tin cans, plastic containers, ceramic pots, or similar water-holding containers. Do not overlook containers that have become overgrown by aquatic vegetation.
- Drill holes in the bottom of recycling containers that are left out of doors. Drainage holes that are located on the sides collect enough water for mosquitoes to breed in.
- Make sure roof gutters drain properly. Clean clogged gutters in the spring and fall.
- Tightly screen "rain barrels" to ensure mosquitoes can't deposit eggs in or on the water.
- Clean and chlorinate swimming pools and outdoor hot tubs. If not in use, keep empty and covered.
- Drain water from pool covers.
- Aerate ornamental pools or stock them with fish. Water gardens are fashionable but become major mosquito producers if they are allowed to stagnate.
- Turn over wheelbarrows and change water in birdbaths at least twice weekly. Both provide breeding habitat for domestic mosquitoes.
- Eliminate any standing water that collects on your property. Use landscaping as needed. Mosquitoes will develop in any puddle that lasts more than 4 days.
- Remind or help neighbors to eliminate breeding sites on their properties.

Please Note: Although certain pesticide products are available for sale in the market place to control mosquito larvae, one must obtain a special permit from the Department of Agriculture, Division of Pesticide Control to be able to apply pesticides to any surface waters in the state of New Hampshire. Questions regarding how to apply for such special permits may best be directed to the New Hampshire Department of Agriculture, Division of Pesticide Control at 1-603-271-3550.

What health risks are posed to people and pets from pesticides?

When control measures are needed, pesticide application may be recommended. The products that will be applied will be used according to integrated pest management guidelines set by the U.S. Environmental Protection Agency. In the small amounts used, these pesticides would pose negligible risks to people and pets. Residents will learn about spraying schedules through different mechanisms that may include public service announcements, the media, the DHHS/DES websites, a telephone information line, and local authorities.

How can I avoid heat stress on hot, humid days?

If you wear a long-sleeved shirt, long pants, shoes, and socks to reduce the risk of mosquito bites, you might be at greater risk for heat stress on hot, humid days. To avoid symptoms of heat stress, you should:

- Wear light-colored, breathable clothing that allows moisture to evaporate quickly.
- Use extra caution if you are required to wear clothing on the job that limits evaporation because you could develop heat stress much more quickly.
- Drink plenty of non-alcoholic and non-caffeinated liquids to maintain body hydration.

**For more information call the
New Hampshire Department of Health and Human Services,
West Nile Virus Information Line
1-866-273-NILE (6453)**

For health care providers with clinical questions or to report human suspect or probable cases please contact the NH Communicable Disease Control Section at 1-800-852-3345 ext. 4496, or 1-603-271-4496.